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PERSON/JOB FIT MODEL OF COMMUNICATION APPREHENSION IN ORGANIZATIONS

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#### PREFACE

This description of research conducted in the area of person/job match is part of an on-going Air Force research program to improve the ability to match people with jobs. The work documented here was performed using data originally collected and used for the author's dissertation. The relevant work unit was 77192024, "Technology Development of Methods to Match People to AF Jobs." The author thanks Belle Rose Ragins for making the original data collection effort possible.

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#### SUMMARY

The construct of communication apprehension (CA) is described and distinguished from similar constructs. The literature on CA and occupational choice is reviewed. Job satisfaction is described and the studies on the effects of CA on job satisfaction are reviewed. Rationales and previous research results are given for hypothesizing: 1) a negative relationship between communication requirements of jobs; 2) a positive relationship between job level held and the communication requirements of the jobs; and 3) only employees both with low CA and in jobs with high communication requirements should be satisfied. Questionnaires are developed to measure job level, communication requirements of jobs, and job satisfaction. The Personal Report of Communication Apprehension-Organization Form is adapted for usage. A total of 601 employees who had attended a career planning workshop were sent a questionnaire designed, among other purposes, to investigate the All but one of the relevant LISREL path hypothesized model. weights were significant and in the predicted direction. The only path weight not significant in the predicted ulrection, was the path weight from job level to communication requirements. For this sample, only the employees with both low CA and also in jobs with high communication requirements were satisfied with their jobs. Implications for practice and for theory were discussed, along with needed future research in the areas of job performance and performance appraisal.

To expand the communication apprehension (CA) literature and to examine the occupational behavior of individuals, a model of CA, job level held, communication requirements of jobs, and job satisfaction was developed. A total of 601 employees who had attended a career planning workshop were sent a questionnaire designed, among other purposes, to investigate the model. All but one of the relevant LISREL path weights were significant and in the predicted direction. Implications for practice and for theory were discussed, along with areas for future research.

## PERSON/JOB FIT MODEL OF COMMUNICATION APPREHENSION IN ORGANIZATIONS

Donald L. Harville

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Communication skills are highly valued in American culture, partly because the majority of high-status jobs require effective communication skills. Communication apprehension (CA) is a fear that interferes with an individual's communication and presumably with her or his ability to obtain and keep high-status and high-income jobs (McCroskey, 1982).

From 1970 to 1980, CA was perhaps the most often researched topic in the field of communication. During this time, over 200 studies on CA were reported in the literature (McCroskey, 1982). Unfortunately, there has been a lack of research on the behavior of high and low communication apprehensives in ongoing organizational settings.

The research on fear and anxiety about oral communication has been conducted under a variety of labels, including stage fright

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(Clevenger, 1959), audience sensitivity (Paivio, 1964), reticence (Phillips, 1968), shyness (Zimbardo, 1977), and CA (McCroskey, 1970). McCroskey (1977) claimed that these different labels were a function of the academic discipline in which they were formulated and were not a function of any theoretical or empirical distinctions.

McCroskey (1982) acknowledged the earlier work in the areas of stage fright and reticence as the foundations upon which the CA construct was developed. He additionally cautioned readers of the literature on shyness to be aware of the inconsistent use of that term and advised against assuming that shyness was a unique construct. McCroskey (1982) conceptualized CA as "a person's level of fear or anxiety associated with any form of communication with other people, experienced either as a traitlike, personality-type response or as a response to the situational constraints of a given communication transaction" (p. 139).

## COMMUNICATION APPREHENSION AND OCCUPATIONAL PREFERENCE

Perhaps one of the most important factors by which jobs differ is the degree to which they involve dealing with people, as opposed to dealing with things or ideas. Dealing with things or ideas at work is probably preferred by individuals with high CA (high apprehensives) over dealing with people, because they consider dealing with people too stressful.

An often-cited study of the relationship between CA and occupational choice is Daly and McCroskey (1975). CA affected both the perceived desirability of a number of occupations and the actual job choices made by the subjects. High apprehensives perceived low-communication jobs as significantly more desirable than high-communication jobs, whereas low apprehensives perceived the opposite. Also, the occupational choices of the high apprehensives were significantly lower in communication requirements than those selected by low apprehensives. Interestingly, the low and high apprehensives agreed on the communication requirements of the jobs studied. Scott, McCroskey, and Sheahan (1976) reported that

an adult sample of high apprehensives had a significant preference for occupations with lower communication requirements than the low apprehensives, whereas for the low apprehensives the pattern was the reverse. Stark, Morley, and Shockley-Zalabak (1987) reported that low apprehensives deliberately sought out and occupied positions with significant communication requirements.

#### JOB SATISFACTION

Job satisfaction has been defined as a pleasurable emotional response to a person's job or job experiences. Satisfaction occurs when a job fulfills a person's needs and values. The similar concepts of morale and job involvement are related to job satisfaction. Satisfaction is past and present oriented, in contrast to morale, which is more future oriented. Job involvement refers only to the degree to which a person is preoccupied by his or her job (Locke, 1983).

The few published studies on the effects of CA on job satisfaction are consistent. Given the finding that introverts tend to have high levels of CA (McCroskey & Richmond, 1982), the results of Cooper and Payne (1967) and Rahim (1981) were not surprising. Cooper and Payne (1967) reported that extroverts had less job tenure and were less well adjusted than the introverts for work of a routine, repetitive, and machine-paced nature in a tobacco factory. This type of work would not satisfy the social demands of the extroverts. Rahim (1981), using a convenience sample of 715 students, reported less job satisfaction for introverts than for extroverts. However, unexpectedly, extroversion-introversion did *not* interact with occupation (classified as technical, intellectual, or social) in being related to job satisfaction (Rahim, 1981).

Falcione, McCroskey, and Daly (1977) reported that employees with high oral CA or low self-esteem or both were less likely to be satisfied with supervision, regardless of the supervisor's behavior. This result was predictable, because the verbal demands imposed on high apprehensives when they were forced to interact with their supervisor would make them anxious, even when a supervisor was

using communication to reward them (Falcione et al., 1977). Using a sample of 243 federal and state employees, Scott et al. (1976) found that with age held constant, employees with low levels of CA had 50% more tenure than employees with high levels of CA. That finding suggested a possible relationship between CA and employee job satisfaction.

Sterns, Alexander, Barrett, and Dambrot (1983) did a field study with 175 civil service clerical employees. As predicted, they found that extroverts were less satisfied than introverts with their present clerical jobs—in terms of the work itself, supervision, and co-workers. Generally, low apprehensives are extroverts (McCroskey, 1982). Thus it would seem that for nonroutine jobs, high apprehensives would be less satisfied than low apprehensives, given the verbal demands of these jobs. Even a promotion usually would not make high apprehensives more satisfied, because promotions usually involve increased verbal demands on job incumbents.

#### HYPOTHESES AND RATIONALE

The literature reviewed suggests an interaction of CA and communication requirements of jobs. See Figure 1 for the hypothesized model.

The most consistent consequence of an individual's suffering from high CA is a low amount of verbal output (McCroskey & Richmond, 1979). High apprehensives have been shown to prefer jobs (Daly & McCroskey, 1975; Scott et al., 1976), to expect jobs (Scott, McCroskey, & Sheahan, 1978), and to hold jobs (Klopf & Cambra, 1979) with low communication requirements. Because of person/job match self-selection and organizational selection (Super, 1953) into jobs for which they are suited, high apprehensives should cluster in jobs with low communication requirements, and low apprehensives should cluster in jobs with high communication requirements.

Hypothesis 1: A negative relationship exists between CA and communication requirements of the jobs.

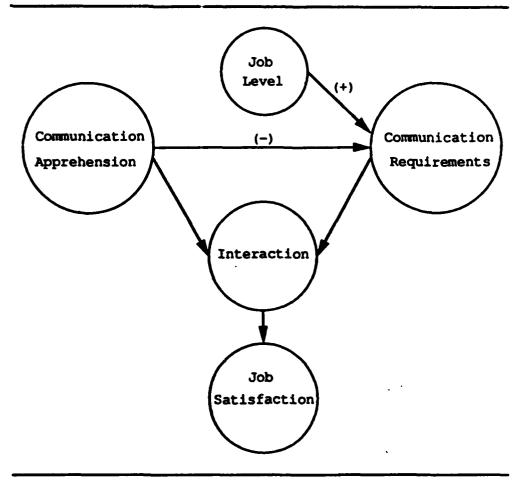


Figure 1: Hypothesized Interactive Model
NOTE: The plus sign (+) indicates a predicted positive relationship; the minus sign (-) indicates a predicted negative relationship.

High-level jobs tend to require more verbal communication than low-level jobs require (McCroskey & Richmond, 1979). Organizational limitations prevented the use of a multi-item communication requirements scale in the study. Including job level as a separate construct in the model provides additional information, with theoretical and practical implications, on what was and what was not measured by the communication requirements scale.

Hypothesis 2: A positive relationship exists between job level held and the communication requirements of the jobs.

Previous research has not examined the interaction of a person's CA level and the job requirements as a predictor of job satisfaction.

Employees should be satisfied only when both the job and their CA level are associated with job satisfaction. Low communication apprehensives should have more job satisfaction than high apprehensives (Falcione et al., 1977), partly because of the negative tendencies, such as overall low satisfaction and tenseness, associated with high apprehension (McCroskey, Daly, & Sorensen, 1976). A positive relationship was predicted between the job level held and communication requirements. Job level has been reported as being positively related to job satisfaction in a large number of studies (Locke, 1983; Vroom, 1964). Therefore, jobs with high communication requirements should be more satisfying than jobs with low communication requirements.

Employees with low CA in jobs with high communication reguirements should be satisfied. Both of those conditions should be associated with job satisfaction. Also, in the language of Super (1953), these individuals have found vocational outlets for their personality. Their CA level matches the communication requirements of their jobs. Employees with high CA in jobs with low communication requirements should not be satisfied. Neither of those conditions should be associated with job satisfaction. Due to their CA level not being associated with job satisfaction, high CA employees in jobs with high communication requirements should not be satisfied. Similarly, because their communication requirements are not associated with job satisfaction, low CA employees in jobs with low communication requirements should not be satisfied. For these last two groups, the lack of a match of their CA with the communication requirements of their jobs (Gottfredson, 1981; Holland, 1973) should also prevent these employees from being satisfied.

Hypothesis 3: Only employees both with low CA and in jobs with high communication requirements should be satisfied.

#### **METHOD**

The sample was all 601 employees who had taken part in an organization's career planning workshop during a 3-year period.

The workshop had been conducted by the organization and was being evaluated by the organization. The company was a large federally financed research organization.

Scott et al. (1978) generated a 20-item scale for measuring oral communication apprehension in the organizational setting. Their Personal Report of Communication Apprehension-Organization Form (PRCA-Organization Form) included items for organizational-type CA on enjoying representing the organization to other groups, answering questions at a meeting, talking to superiors and subordinates, and interviewing people, as well as public speaking and group discussions. The scale had an odd-even internal reliability of .91. Scott et al. (1978) also demonstrated the predictive validity of the PRCA-Organization Form. As predicted, the high apprehensiveness had less desire for advancement, were less likely to expect advancement, were more likely to see themselves in positions with low communication requirements, and were more likely to prefer jobs with lower communication requirements than were the low apprehensives.

Because of administrative limitations on the length of the questionnaire, only 16 of the 20 items in the PRCA-Organization Form were used to measure the employees' CA level. The 4 items that were not chosen had the lowest item-total correlations in Scott et al. (1978). Two of the 4 excluded items also used the word subordinate and were excluded because not every employee in the sample had a subordinate.

The Career Planning Workshop Evaluation Questionnaire was used to investigate the model. Four scales were constructed from the questionnaire. Again, given administrative limitations, only the CA scale had been used in previous research. CA, job level (i.e., government General Schedule number), communication requirements, and job satisfaction were measured. Communication requirements of the job was measured with a single item that asked the respondents to what degree their present jobs required them to actively and verbally interact with others. The job satisfaction scale was a 13-item scale designed to measure job satisfaction at the postworkshop time. This scale dealt with satisfaction with opportunities for promotions, using and improving one's skills and abil-

ities, pay satisfaction, personal rewards from work, and satisfaction with the organization. Both of the multi-item scales had a Cronbach's alpha above .85. The CA scale had an alpha of .90. The job satisfaction scale had an alpha of .89.

After securing permission to conduct the study in the organization, the Career Planning Workshop Evaluation Questionnaire and a cover letter were sent to all 601 employees who had taken part in the workshop and could be located using company records. The number of usable questionnaires returned was 351, a response rate of 58.2%.

Slightly over one half of the respondents, 52.5%, were male. Their modal age was 30 to 40. They had an average tenure of 11.2 years in the organization and 5.0 years on their present job. Of the respondents, 22.5% were managers or supervisors, 11.4% were administrative or service staff, 18.6% were technical research and development staff, and 25.4% were technical support. Their modal number of employees supervised was four. Their modal highest level of educational attainment, 38.1%, was a bachelor's degree; 19.9% had a master's degree; and 6.6% had a doctorate.

#### **RESULTS**

To test for the hypothesized interaction, median splits were conducted. The employees were categorized into four groups on the basis of their CA and the communication requirements of their jobs (i.e., high/high, low/low, high/low, and low/high). Dummy coded variables were used to test the hypothesized interaction, in which only individuals with low CA and jobs high in communication requirements would be satisfied. A dummy contrast weight of +1.0 was given to the group of low apprehensives in jobs with high communication requirements. The other three groups each received dummy contrast weights of -.33333. This dummy variable served as the interaction term. Table 1 presents the standardized job satisfaction for each of the four groups. It should be noted that this pattern of standard scores appears to be consistent with the hypothesized interaction between CA and communication requirements.

TABLE 1: Job Satisfaction in Standardized Units Broken Down by Communication Apprehension (CA) and Communication Requirements

	Communication Requirements		
Communication Apprehension	Low	High	Totals
High	-0.194	-0.165	-0.181
	0.965	0.924	0.943
	(86)	(75)	(161)
Low	-0.088	0.340	0.177
	1.137	0.953	1.045
	(58)	(94)	(152)
Totals	-0.152	0.116	-0.007
	1.035	0.971	1.008
	(144)	(169)	(313)

NOTE: In each cell, the first number is the mean, the second number is the standard deviation, and the number in parentheses is the number of respondents.

Because most of the constructs in the hypothesized model were measured by more than one measure, LISREL VII was used to determine the causal structure of these constructs. Using LISREL also allowed for variables to be both independent and dependent simultaneously (Jöreskog & Sörbom, 1981). As recommended by James, Mulaik, and Brett (1982), the structural relationships measurement model was solved separately from the structural equation model. Correlations involving the dummy interaction term were corrected for range restriction before they were input into the LISREL models. LISREL VII unweighted least squares provided the measurement model weights for the scales. The data fit the measurement model with a goodness-of-fit index of .955 (.945 when adjusted for degrees of freedom) and a root mean square residual of .068.

The LISREL structural equation model used had CA and job level as the exogenous variables. Communication requirements, the interaction of CA and communication requirements, and job satisfaction were the endogenous variables. There were 17 manifest independent variables in the model and 15 manifest dependent variables in the model.

The measurement model weights were used as constants in the structural equations. For the structural equations model, the

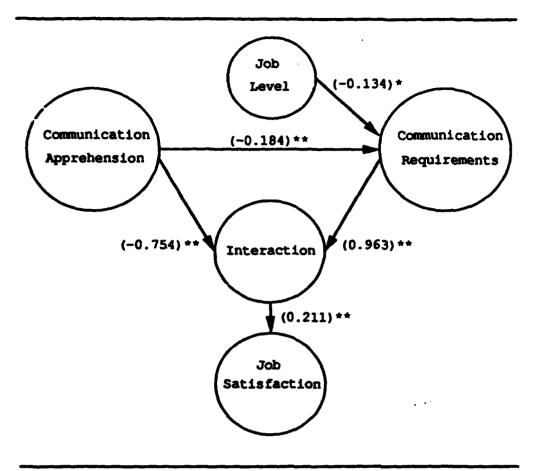


Figure 2: LISREL Maximum Likelihood Path Weights p < .05; p < .01.

goodness-of-fit index was .764 (.758 when adjusted for degrees of freedom) and the root mean square residual was .072. Chi-square for the model was 1,815.65 with 516 degrees of freedom (p < .001). Because larger sample sizes — as well as any deviations from multivariate normality — seriously inflate chi-square, the goodness-of-fit indices are considered more appropriate assessments of this model's fit (Baldwin, 1989). The critical N statistic (Hoelter, 1983) was also computed. Although the critical N value of 112.93 does not indicate an excellent fit, it suggests an adequate fit commensurate with the values of the goodness-of-fit index and the root mean square residual.

Figure 2 presents the maximum likelihood path weights for the structural equations model. All of the maximum likelihood path weights, predicted by the hypothesized model to be significant, had

t values significant to at least the .05 level. The path weight from CA to communication requirements was negative, as predicted by Hypothesis 1, and had a t value significant at the .01 level. The path weight from job level to communication requirements was negative and significant at the .05 level, contrary to the predicted positive direction of Hypothesis 2. Both path weights to the dummy-coded interaction variable were significant at the .01 level, but their directions were not predicted. The path weight from the interaction variable to job satisfaction was positive, consistent with the dummy contrast weights used for Hypothesis 3, and significant at the .01 level. Overall, the most satisfied employees had low CA and were in jobs with high communication requirements, as predicted.

#### DISCUSSION

Little research has been reported on the occupational behavior of individuals as a function of their CA level. The purpose of this research was to examine an interactive model of CA in organizations and to expand the CA literature.

The major limitations of the study involve the samples and the scales used. It is unknown how representative the sample of employees attending the career planning workshop and the survey respondents were of the organization as a whole. Demographic information on the organization as a whole was unavailable to the researcher. The respondents ranged from GS-2 to GS-15 in the organization, so there appeared to be a broad range of respondents.

Contrary to Hypothesis 2, there was a significant and negative path weight from job level to communication requirements. Higher level jobs had significantly lower communication requirements than lower level jobs. The organization's primary mission included research. Thus the organization may have included many high-apprehensive research and development employees, with jobs that had relatively low verbal communication requirements, but at relatively high levels in the organization. That possibility could explain why Hypothesis 2 was not supported.

#### **IMPLICATIONS**

The low job satisfaction of high apprehensives, regardless of the communication requirements of their jobs, has implications for organizations. Organizational resources could justifiably be directed toward helping high-apprehensive employees with the goal of increasing their job satisfaction, as well as increasing the pool of promotable employees. Several techniques are available that may help high apprehensives reduce their CA level, such as systematic desensitization and cognitive restructuring (McCroskey & Richmond, 1979). The monetary and time resources required by some of these techniques may be minimal compared to the benefits derived by individuals and organizations using them. Increases in job satisfaction and promotability may be expected from reducing the CA level of high-apprehensive employees.

The results suggest that increasing the communication requirements of jobs may also increase job satisfaction, but not for high-apprehensive employees. This increase in communication requirements may be a form of job enrichment. Employees have to be satisfied on both CA (i.e., have low CA) and communication requirements (i.e., be in jobs high in communication requirements) in order to be satisfied. Therefore, in addition to making available treatment programs to reduce CA for currently employed high apprehensives, it appears desirable for organizations to increase the communication possibilities, but not the communication requirements, of jobs with low communication requirements.

It may be to the organization's advantage, in terms of increasing the job satisfaction of employees, to use a screening device, such as interviews or the Personal Report of Communication Apprehension-Organization Form, to assess the CA level of job applicants. Also, this would allow the organization to select more low apprehensives. High apprehensives who are selected could be placed in jobs with low communication requirements until they have been treated. After successful treatment, they would be ready for jobs with high communication requirements. Current employees with high CA could be given the option of taking treatment to reduce their CA level. The difficulty that high apprehensives may

have in developing and maintaining friendships with fellow employees could partially explain their low job satisfaction. Organizational programs, such as assigning each new employee to a mentor, could improve job satisfaction.

Although the question is beyond the scope of this study, the dissatisfaction of high apprehensives may have negative effects on intraorganizational and interorganizational communications, as well as on clients and customers of organizations. Hearing or seeing a dissatisfied peer may have a negative effect on the job satisfaction of other employees. Dissatisfied high apprehensives in an organization could act almost like a disease and impair the job satisfaction and functioning of fellow employees. The same process may occur when a dissatisfied high-apprehensive employee interacts with a member of another organization or with a client or customer.

#### SUGGESTIONS FOR FUTURE RESEARCH

Because job performance issues were not addressed in this study, several questions for future research are presented. It would be expected that high-apprehensive employees will not only prefer jobs with low communication requirements but also will do better in those jobs than they would in jobs with high communication requirements. High apprehensives in jobs with high communication requirements may adversely affect the flow of organizational communication and thus have lower job performance than low apprehensives. High-apprehensive managers may have better job performance with high-apprehensive employees or employees in jobs with low communication requirements. Those managers may have an easier time identifying with those employees and jobs.

Most of the respondents reported that their jobs required them to "constantly" or "frequently" actively and verbally interact with others. Was the communication-requirements item poorly written, was the item too global, or did the respondents correctly answer the item? Because jobs with higher communication requirements generally have higher status than jobs with lower communication requirements, research is needed into the possible presence of some kind of social desirability bias.

Depending on the type of job held, employees may be able to moderate the verbal communication requirements of their job to match their CA level. This possibility deals with a moderator-type variable, job type, that could affect how employees respond to a communication-requirements scale. In certain jobs, employees may have more freedom to talk more or less, depending on their personal preference, than in other jobs. Nonmanagement employees perhaps have more freedom than management employees to talk less than the job officially requires.

Job performance style could also differ as a function of CA level. High apprehensives may try to do their jobs on their own, being less likely to seek advice and training from their supervisors and peers than low apprehensives. High-apprehensive managers could be more efficient timewise in verbal communication than low-apprehensive managers in order to decrease the amount of time they have to spend talking.

Performance-appraisal issues also need to be researched, especially because so little CA research has been conducted in actual organizations. High apprehensives in leadership positions could be perceived negatively. Such qualities as leadership, competence, credibility, power, and friendliness could be adversely affected by their high CA.

The present research design did not allow any strong conclusions to be drawn about the movement of employees after attending the career planning workshop. It could not be determined if there was a negative relationship between CA and the number of promotions after the workshop, as would be expected. A longitudinal design needs to be used to investigate accurately relationships involving employee movements.

Given that communication is an important process in organizational effectiveness and that high apprehensives may decrease organizational communication, many issues are available for future research. For example, the impact of CA and job characteristics on job performance, on how employees are perceived by evaluators, on turnover, and on absenteeism all need further research. Therefore, more CA studies must be done in actual organizations to identify and resolve a basic interpersonal communication block that can have so strong an impact on organizational effectiveness.

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